

REMARKS

This application pertains to a novel method for bonding electrical modules to card bodies.

Claims 2-6 and 8 are pending.

Claims 2, 3, 5, 6 and 8 stand rejected under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Watada (U.S. 6,012,64).

It is noted that there presently is no claim 1 in the application, so “.as applied to claim 1 above...” is not correct...there is no claim 1 for the reference to be applied to. Applicants therefore interpret the rejection as simply being based on Copperwheat in view of Watada.

Applicants' claims pertain to a method for **bonding chip modules** in card bodies. In this regard, please see Applicants' Figure 1, which depicts chip module (2) bonded to card body (3) with adhesive (1). Also please see the description of Figure 1, at page 3, lines 25-28. It must be emphasized that Applicants' claims are directed to the bonding of **chip modules in card bodies**.

The Copperwheat reference is concerned with an adhesive coated felt (col. 1, line 55; col. 2, lines 15 – 21). There is absolutely nothing in Copperwheat that pertains to card bodies at all, and certainly not to the bonding of chip modules in card bodies. Therefore, a rejection of Applicants' claims as obvious over Copperwheat in view of Watada makes no sense. There is nothing in Copperwheat that could be supplemented by Watada to arrive at Applicants' invention.

The only thing in Copperwheat that might be relevant to the present invention is the disclosure of some adhesives; but certainly nothing about the use of any of such adhesives for bonding a chip module in a card body.

The Watada reference pertains to a laminated card having a cavity for embedding a chip module *by embedding a chip module by milling process in the laminate cut to the shape of a card* (claim 1). Watada's chip module is embedded well-within the interior of the card body (see Fig. 4(b)), and Watada does not teach or imply that his chip module is adhesively bonded in any way to the card body.

The Examiner contends, at page 3 of the office action that:

Hence it would be obvious to have used the Griltex polyester adhesive of Copperwheat to bond the PET layers making up the chip module and the card body in Watada because the polyester adhesive was known to bond polyester substrates and because Watada calls for a general thermoplastic adhesive that can bond polyester substrates.

However, bonding of the plurality of polyester sheets to make up Watada's card

body (col. 3, lines 59-65, Figure 3 and col. 3, line 55 – col. 5, line 10) has absolutely nothing to do with bonding a chip module in a card body, such as is required by Applicants' claims.

Nowhere does Watada or Copperwheat teach or imply anything about the bonding of a chip module to a card body, such as is shown in Applicant's figure 1.

More specifically, nowhere does either of these references show any adhesive in contact with both a chip module and a card body so as to bond the chip module to the card body.

To the contrary, Watada simply discusses and illustrates a cavity for a chip module. At column 2, lines 47-50, Watada teaches that his IC chip module is "inserted" and "embedded" in the card. Nowhere does Watada teach or imply that any adhesive is used or that any is necessary.

The only place that Watada mentions an adhesive is at column 5, lines 58-60, where he teaches that the polyester films/sheets making up his card body can be laminated together with an adhesive or by heat sealing.

At col. 5, lines 5-6, Watada teaches that a cavity for embedding his chip module is formed in the card body by milling. Watada does not teach or imply that any adhesive is necessary or desirable.

Note that Watada's Figure 4 does not leave any room for any adhesive. Compare this to Applicants' Figure 1, which illustrates the presence of adhesive (1).

Nowhere within either Copperwheat or Watada is there anything to be found that has anything to do with bonding of a chip module in a card body with an adhesive.

Accordingly, no combination of Copperwheat and Watada could ever lead to Applicants' novel method for bonding chip modules in card bodies, and the rejection of claims 2, 3, 5, 6 and 8 under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Watada (U.S. 6,012,64) should now be withdrawn.

Claim 4 stands rejected under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Uno (U.S. 4,065,439). The Examiner finds it obvious to include an epoxy in the hot melt adhesive of Copperwheat.

However the use of an epoxy adhesive in the invention of Copperwheat would lead to an epoxy adhesive coated felt substrate. This does not have anything whatsoever to do with any kind of card body, and certainly nothing to do with bonding a chip module to a card body. More specifically, the Examiner's conclusion that "...it would have been obvious to have used a reactive epoxy with the hot melt adhesive of Copperwheat as taught by Uno, to improve solvent resistance" has nothing to do with

any kind of card body and cannot possibly lead to Applicants' invention.

Claim 4 depends from claim 5, which is directed to a method for bonding chip modules in card bodies, and therefore incorporates all the limitations of claim 5. Claim 4 therefore is also directed to a method for bonding chip modules in card bodies.

Neither Copperwheat nor Uno have anything to do with a method for bonding chip modules in card bodies, as recited in Applicants' claims 5 & 4, and the rejection of claim 4 under 35 U.S.C. 103(a) as obvious over Copperwheat (U.S. 6,846,759), as applied to claim 1 above, and in view of Uno (U.S. 4,065,439) should now be withdrawn.

In view of the present amendments and remarks it is believed that claims 2 - 6 and 8 are now in condition for allowance. Reconsideration of said claims by the Examiner is respectfully requested and the allowance thereof is courteously solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account
No. 14-1263.

Respectfully submitted,
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